

That evening the crows circled over the trees for a time, cawing excitedly. Then they began settling on the ground until the entire flock was standing in a semicircle. An old crow hopped into the cleared space, facing his fellows, and they grew suddenly quiet. We could hardly believe our eyes as the old crow cawed in a rising crescendo of agitation, then resumed his place in the circle. Another crow flew out and addressed them. Several of the listening crows cawed responses. It looked like a town meeting.

When half a dozen crows had spoken, the entire flock rose into the air and followed the first speaker. He picked the dead crow from the limb, much as a fish hawk carries a fish in its claws, and flew low over the ground until the weight of the dead bird brought him to a stop. Another crow immediately swooped down and carried the burden a similar distance. A third crow picked up from there, and, flying low over our pasture pond, dropped the dead bird into the water.

At once all turned about and went back to the grove. Once more the trees were black and silent with roosting crows.

— Wilma Hay

TALKING TACTICS

Can animals talk? My friend Alonzo, Algonquin trapper who has spent 50 years in the forests of Quebec, believes so. One January day he watched two buck deer as they ran single file through the deep snow. Behind them, as yet out of sight, was a pack of wolves baying on the scent. The lead deer labored on,

breaking trail for the buck at his heels. Suddenly both stopped. The first one turned to the second and "said" something, according to Alonzo. In an instant the second deer bounded forward and took the lead, giving the trail breaker a needed rest. They went on this way for a few hundred yards, when they again reversed positions. Had they run side by side in the unbroken snow they would have been overtaken. By frequently changing places, one could rest while the other plowed forward. In this way they outdistanced the wolves. Alonzo sums it up: "Maybe dey can't talk, but dey know what dey say!" — John Duran

REYNARD SETS A TRAP

One winter day when I was out for a walk in the woods I heard the bark of a dog. Almost immediately a fox emerged from the forest, and, in spite of my nearness, ran down to the nearby lake, covered with ice.

The fox continued out on the ice until he came near the open water. Cautiously, gingerly, he went to the very verge. Then, with delicately precise footwork, he backtracked along his own trail until he came to the beach. There, with a great sidewise leap from the trail, he vanished into hiding among some evergreens.

The dog that I had heard barking came tearing out of the woods, hot on the fox's track. He rushed out on the snow-covered ice of the lake. Running hard, head down, he had no inkling until it was too late. There was a splash, a yelping, and he had been claimed by the icy water.

— Ove Olsson, Olofstrom, Sweden

» MY SISTER, who runs a chicken farm in upper New York state, hires a handy man whom she pays by the hour because he only works when he feels like it. But when living costs began to rise, my sister felt it was only fair to increase his pay and broached the subject to him. He just shook his head. "Oh, no, ma'am. I figgers I lose enough money now as 'tis when I don't work. I don't figger on losin' more."

— Contributed by Edward J. Kelly

August 1945

ALLAN A. MICHIE

By wireless from Germany

GERMANY

Was Bombed to Defeat

Here at last are the FACTS

Condensed from *Skyways*

"*I*t is beyond a shadow of a doubt that your bombing shortened the war by at least two years," said Professor Doktor Eduard Houdremont, harassed head of the once-great Krupp industrial empire.

He should know. Krupp's gigantic plant at Essen covered 2150 acres. Not one of the 200 buildings is intact.

In all, perhaps a hundred key German cities, with their factories, were heavily attacked. I have seen 29 of these cities, flying low over them or clambering through the ruins.

Mere words are inadequate to describe the fearful retribution that has overtaken Hitler's Reich. Millions of houses are gutted or smashed to fragments (of Dortmund's 50,000 houses, for example, only 2500 are

From official German documents and intelligence reports, from interviews with factory managers and city authorities, and from firsthand observation from air and ground, Allan A. Michie here reveals the terrific effect of the bombing of Germany by the Allied air forces. Mr. Michie arrived in London on the first day of the war and has covered the activities of the RAF and the American Air Forces ever since. In *The Reader's Digest* for January, '43, appeared his article "How Much Has Bombing Hurt Germany?" Here he gives a definite answer to that question.

habitable); thousands of factories, large and small, are destroyed or out of production; utilities and transport systems have come to a standstill. Millions of Germans are living a troglodyte existence in cellars. Thousands of bodies still lie under piles of brick and stone.

As early as October 1943, official German figures conceded that 1,200,000 civilians had been killed or were missing in air raids. No one knows to what awful total that figure had climbed by V-E Day, because the statistics were destroyed in Berlin's air raids.

Berlin no longer exists as a city. Hamburg is 85 percent destroyed. Official German figures show that 20,000 died, 60,000 were injured in Hamburg on the night of July 25, 1943, when a fire-bomb inferno raged through the dock areas. Nazi officials tore off their uniforms and ran into hiding to escape the enraged survivors. The inner city of Cologne has been almost 100 percent destroyed. Bremen is half wiped out.

The combined damaged areas of London, Bristol, Coventry and all the blitzed cities of Britain could be dumped in the ruins of just one medium-sized German city and

hardly be noticed. The raid on Coventry in 1940 marked the peak of Luftwaffe destructiveness; and there the Germans dropped 200 tons of bombs. By that standard Berlin suffered 363 Coventrys, Cologne 269, Hamburg 200 and Bremen 137.

The Ruhr is the largest single concentration of heavy industry and coal mines in the world. And it was a vulnerable air target, within easy reach. The Germans couldn't move their heavy industries to safer areas any more than we could move Pittsburgh to Montana. Nor has anyone yet been able to put huge steel mills underground.

Hundreds of night fighters and 2000 anti-aircraft guns guarded the approaches to this vital area. Continuous industrial haze provided a perpetual smoke screen. Fifty target decoys using dummy buildings and false fires were set up around the Ruhr and west of the Rhine to lure British night bombers into the open countryside.

Against these obstacles the RAF did comparatively little damage for a time. But in March of 1943, aided by new blind-bombing devices, target-indicator flares and still secret marking devices, the bomber command began the real battle of the Ruhr. Two years later the last Ruhr chimney stopped smoking.

Dr. Paul Maulick, managing director of the syndicate to which all German steel mills belonged, admits that bombing reduced German steel production from 20,000,000 tons per year in 1941 to practically nothing in 1945. Damage to railway and canal communications all over Germany prevented transportation of raw ma-

terials and cut the production of steel by 80 percent, while direct hits on the furnaces finished it off.

"In the end," he admitted, "we couldn't continue to repair the railways because we needed steel to make rails; and we couldn't produce steel because the railways couldn't bring ore and coal to the furnaces."

HEART of the Ruhr is Krupp's. The first gun this factory ever produced for the Berlin government was a cast steel three-pounder, ordered in April 1844. Exactly 100 years later the last gun left the Krupp workshops. Krupp specialists had been designing mammoth guns to shell Britain, possibly London, from the French coast. How near they came to success can still be seen amid the ruins of the heavy-gun shops, where colossal mortar and gun barrels lie twisted from high explosives.

London may never know what it was spared from new V-weapons. An RAF bomb in the middle of 1944 destroyed the safe in the laboratory of Krupp's chief of construction, Professor Erich Müller, where plans of great guns and new V-weapons were stored. By the time new plans could be drawn in safer laboratories in Silesia and Austria and sent back to Krupp, the tool sheds had been wiped out by bombs.

Under cover of bad weather, Krupp's attempted to rebuild half of the ruined plant in the winter of 1943-1944. But a single raid in March 1944 undid three months' repair work. Five more frantic months of reconstruction ensued, then the bombers again attacked.

One bomb cut the main water supply line from the Ruhr River to the plant, and steel production dropped from 42,000 tons daily to nothing in a few hours. This was the end; not one of the 28 departments produced anything more.

Krupp's personnel manager, when I questioned him, hotly denied that the factory's workers were guilty of absenteeism after heavy air attacks, but Krupp's production charts give him the lie. Throughout 1943-1944 work in every department was held up because of "nonarrival of workers." Charts show, for example, that eight percent of the potential work hours in April 1944 were lost during alarms and raids, and an additional 20 percent were lost when workers failed to show up because they had been bombed out, stranded without transport, were injured or sick, or deliberately absented themselves.

WHEN a special force of British Lancasters broke the Möhne Dam in May 1943, one of the great exploits of the war,* they not only flooded the coal mines and put most of Dortmund under water, but — a fact only now revealed by Krupp's records — they also shut down for lack of electric current Krupp's great rolling mill, 50 miles away.

Rivaling the Krupp empire as a producer of armaments was Germany's huge Rheinmetall-Borsig, at Düsseldorf. There is not a single building of Rheinmetall-Borsig with roof or walls intact. One thousand

*See "Operation As Arranged," The Reader's Digest, February, '44.

special factory firemen fought a losing battle against incendiaries which burned out what high explosives didn't destroy. Great steel pillboxes intended to defend the Atlantic Wall against invasion, massive armored cupolas fitted with 4.7-inch guns for the Siegfried Line, huge 75-ton armored turrets for heavy battle cruisers — all now lie twisted and blasted amid the wreckage.

Lying about like super ninepins in another section of the plant, I came across fantastic mortars, more than 23 inches in caliber, and scores of their shells which weighed 4000 pounds. Only seven of these mortars had been produced when the RAF raids smashed the place.

The United States Eighth Air Force was ordered in 1943 to destroy the Luftwaffe fighter force on the ground and in the air. The Luftwaffe had begun a building program to quadruple its fighter force. It had to be paralyzed if there was to be any successful invasion of Europe.

The Eighth had some discouraging times but it fought on. Blessed providentially by six days of unheard-of clear weather in February 1944, it delivered devastating attacks on five German aircraft plants and destroyed production accounting for 75 percent of Germany's total fighter output. In the first five months of 1944 the back of the Luftwaffe was broken, and on D Day General Eisenhower could confidently tell his men when they embarked for Normandy, "Don't worry about planes overhead. They will be ours." They were.

Except for sporadic sorties and an occasional defense of a target of

highest priority, the Luftwaffe was out of the air from Normandy to the Elbe. A captured German soldier said the German army had coined a new method of aircraft identification. "If we see silver planes, they are American," he said. "If they are black, they're British. If we can't see them at all, they're the Luftwaffe."

The Eighth Air Force was also assigned the job of destroying Germany's synthetic oil plants, and by November 1944 every such plant in the Ruhr was out of production. In the files at Hitler's headquarters there is a letter dated September 16, 1944, from Albert Speer, Reichsminister of War Production, to Reichsleiter Bormann, Hitler's deputy:

The idea is spreading that reconstruction of synthetic oil plants and refineries is purposeless, since the enemy always finds a suitable moment, soon after resumption of work, to destroy these installations again by air attack. We must not allow ourselves to give up hope. All resources must combine for the reconstruction of synthetic plants and refineries. *Heil Hitler!*

But all Speer's efforts and an army of German and slave workers could not put together what the bombers had knocked down. In November 1944, General Stumpff, responsible for the fighter defense of the Fatherland, had to issue drastic orders: no gasoline was available for training flights, and combat flights could be made only in defense of highest priority targets.

The effects of these cuts were soon seen. German fighter pilots, sent into combat after 150 hours flying train-

ing, as compared with 500 to 600 hours for United States pilots, were knocked out of the skies.

The synthetic oil factory at Leuna, west of Leipzig, the largest in Germany, was the most heavily defended industrial plant in the Reich. It was protected by a smoke screen 30 miles in perimeter and by upwards of 450 heavy ack-ack guns. Leuna was raided 21 times, and production dropped to about one fourth of capacity. Bombing this one plant deprived the Wehrmacht of enough gasoline to operate 12 armored divisions for three months.

IN THE Ruhr I visited what is left of Germany's first synthetic oil plant (started with \$7,000,000 in United States loans, by the way). According to Dr. Karl Eugen Spanier, chief technical director, his plant received an urgent message from the German high command immediately following D Day: "Unless oil production is increased imminently, the Luftwaffe will be grounded by the end of the year." Special bonuses were offered to research workers to speed up the processes. But June 15, 1944, a week after D Day, bombs heavily damaged the research laboratories. The next day another raid knocked the heart out of the factory. After eight weeks frenzied repair work got it back into partial operation. Then came other heavy raids. No more production ever came from that factory.

Medium and fighter bombers, as well as the heavies, were turned loose against Germany's intricate network of railways and canals. By the end

of 1944 the only freight cars the Germans sent into the Ruhr area were old ones they were prepared to lose. Rail traffic out of the Ruhr had been reduced 75 percent. When the Dortmund-Ems canal was cut, coal stocks piled up at the Ruhr mines and caused severe coal shortages all over the rest of Germany.

According to official German figures, 2,000,000 foreign slave laborers, in addition to the regular German railway workers, were employed in repairing railway damage. Fritz Knickenberg, chief inspector of the great Hamm marshaling yards, supervised 4000 railway men plus 8000 laborers constantly employed on rail repairs. "From 1943 onward," said Knickenberg, "your bombers were far more punctual than our trains, and after January 1945 our repair gangs were unable to cope with the damage." By March 1945, when the Germans were desperately trying to assemble forces in the Ruhr to halt the Allied armies' advance, loaded troop trains sat on sidings for three to ten days, waiting for locomotives to move them.

IT WAS a newspaperman who supplied the apt definition, "tactical bombing is knocking over the milk pail every day, while strategic bombing is an effort to kill the cow." The day-to-day job of knocking over the milk pail was generally left to the United States and British tactical air force which operated from just behind the front lines.

Captured Germans and their documents reveal that German troops and

material were constantly thwarted in their attempts to reach the fronts where they were needed. Two German divisions were ordered from Bordeaux to Normandy to help stem the Allied invasion. There was no gasoline, and it took 14 days for the divisions to reach the Normandy battlefield by foot and horse transport.

The First Panzer Division took ten days to get from Ghent, Belgium, to Normandy because of detours forced by blasted bridges. German troops were ordered from the Russian fronts to Normandy. They moved by rail as far as the Rhine. Then they started for the Seine on foot. They arrived just in time to be swept up by the advancing Allied forces.

"Every ton of bombs dropped on Germany's industries will save the lives of ten United Nations soldiers when the invasion comes," said Chief Air Marshal Harris in 1943. The casualty count from D Day to V-E Day is the proof of his prediction. The Allied armies were able to reach the center of Germany without the long-drawn agonies and the fearful casualties of World War One.

But the aerial battle of Germany was not won without great costs. When the totals are drawn, it will be found that the combined losses of British and American airmen from September 3, 1939, when the air battle to destroy Germany began, to V-E Day, far exceed the toll of dead in the combined British and American land forces from the invasion of Normandy to the end of the war in Europe.